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## BIOLOGY

## BOOKS - NTA MOCK TESTS

## NTA NEET SET 31

1. Arrange these hominids in ascending order of their cranial capacities .
A. Java man $\rightarrow$ Homo habilis $\rightarrow$

Neanderthal man
B. Homo habilis $\rightarrow$ Java man $\rightarrow$

Neanderthal man
C. Neanderthal man $\rightarrow$ Homo habilis $\rightarrow$

Java man
D. Homo habilis $\rightarrow$ Neanderthal man $\rightarrow$

Java man

Answer: B

D Watch Video Solution
2. A RBC and a plant cell (with thick cell wall) are placed in distilled water. The solute concentration is the same in both the cells. What changes would be observed in them
A. Both plant cell and RBC would not undergo change
B. The RBC would increase in size and burst, while the plant cell would remain about the same size
C. The plant cell would increase in size and
burst, while the RBC would remain about the same size
D. Both plant cell and RBC would decrease in size and collapse

## Answer: B

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3. Given below is a diagram showing different parts of an eye


Some parts are labeled as A,B,C and D.

Read the following statements about these parts and choose the correct one
A. The eyeball contains $C$, Which is held in
place by ligaments attached to the
ciliary body .
B. The space between $B$ and $C$ is filled with
a transparent gel called the vitreous
humour.
C. Light rays of visible wavelength focus on

A through $B$ and $C$ and generate impulses in the photoreceptor cells of the eye.
D. D is the external layer, which is made up

## Answer: C

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4. Modified polysaccharides acting as a ground substance is found in :
A. Epithelial tissue
B. Connective tissue
C. Muscular tissue
D. Neural tissue

Answer: B

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5. In context of Amniocentesis, which of the following statement is incorrect?
A. It is usually done by the collection of the amniotic fluid surrounding the foetus.
B. It is used for prenatal sex determination

# C. It can be used for detection of Down 

## syndrome

D. It can be used for detection of Cleft palate

## Answer: D

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6. The plant rose is placed under two taxa

Rosales and Rosaceae. Which of the following
is correct about these ?
A. Rosales is order and Rosaceae is family
B. Rosales is order and Rosaceae is order
C. Rosales is tribe and Rosaceae is family
D. Rosales is family and Rosaceae is tribe

## Answer: A

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7. A patient comes to doctor's clinic situated on the 6th floor by walking up the staircase. As
soon as he reaches the clinic, the nurse
records his blood pressure as 148/92 mm Hg. Which of these statement is surely correct ?
A. The patient has high blood pressure and
is definitely having hypertension
B. The patient has high blood pressure and is definitely not having hypertension
C. The patient has high blood pressure but may or may not have hypertension
D. the pointer has high blood pressure due to coronary heart disease

Answer: C

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8. 9. pH of blood: (P)
1. Blood forms (W) \% of the total body weight
2. Proteins form (Pr) \% of plasma
3. The thickness of RBC: (R) micrometer The

CORRECT arrangement of the above values is
A. $W>P>P r>R$
B. $W>P r>P>R$

## C. $R>P>P r>W$

$$
\text { D. } W>R>P>P r
$$

## Answer: A

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9. Epipetalous and epiphyllous condition are respectively seen in :
A. Lily and Brinjal
B. Onion and Brinjal
C. Brinjal and Lily
D. Mustard and Onion

## Answer: C

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10. A person was advised to do urine tests and
a blood tests for glucose . Glucose was detected in his urine. He was not taking any medications. Which of the following values will
correspond to the amount of glucose in the blood of a person?
A. 200 mg of glucose per 100 ml of blood
B. 140 mg of glucose per 100 ml of blood
C. 120 mg of glucose per 100 ml of blood
D. 100 mg of glucose per 100 ml of blood

Answer: A
(D) Watch Video Solution
11. How many of the following are the members of the family Fabaceae?

Gram , belladonna, arhar , moong , potato , Indigofera, pea, tobacco, Sesbania
A. five
B. six
C. seven
D. four

Answer: B
12. Which of these is true about the type of parthenogenesis?
A. In arrhenotoky, only males are produced
by parthenogenesis while in thelytoky only females are produced by parthenogenesis.
B. In arrhenotoky , only females are produced by parthenogenesis while in
thelytoky only males are produced by parthenogenesis.
C. In arrhenotoky, only either males or
females
are
produced
by
parthenogenesis while in thelytoky only
females are produced by
parthenogenesis.
D. In arrhenotoky, only males are produced
by parthenogenesis while in thelytoky
only either males or females are produced by parthenogenesis.

## Answer: A

## D Watch Video Solution

13. The condition with the united calyx in a flower is called as
A. Gamosepalous
B. Polysepalous

## C. Polypetalous

D. Gamopetalous

## Answer: A

## - Watch Video Solution

14. WIDAL test is used for the detection of
A. Disease caused by a protozoan called

Trichomonas
B. Disease caused by a rod shaped
bacterium called Salmonella typhi
C. Disease caused by a spherical bacterium

called N. gonorrhoea.

D. Disease caused by a spiral bacterium
called Treponema pallidum

Answer: B

## D Watch Video Solution

15. The type of embryo sac discovered by

Strassburger in Polygonum plant ,
A. Has seven called seven nucleated
structure and is bisporic.
B. Has seven called seven nucleated
structure and is monosporic.
C. Has seven called eight nucleated
structure and is bisporic.

## D. Has seven called eight nucleated

 structure and is monosporic.
## Answer: D

## D Watch Video Solution

16. During human pregnancy, when is the first movement of the foetus observed?
A. At the end of first trimester
B. At the end of second trimester

# C. At 20 weeks of gestation 

D. At 16 weeks of gestation

## Answer: C

## D Watch Video Solution

17. In angiosperms, ..............nuclei participate in

## fertilization.

A. 2
B. 4
C. 5
D. 7

## Answer: C

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18. Identify the correct match between the types of stem modifications and their

## examples.

| Column I | Column II |
| :--- | :--- |
| i. Stem tendril | a. Citrus |
| ii. Fleshy photosynthetic stem | b. Strawberry |
| iii. Woody thorns | c. |
| iv. Underground horizontal <br> stem | d. Opuntia |

A. i-a,ii-d,ii-b,iv-c

B. i-d,ii-c,iii-b,iv-a

C. i-a,ii-b,iii-c,iv-d

D. i-c,ii-d,iii-a,iv-b

## Answer: D

19. Total number of meiotic division required
for forming 100 zygotes/100 grains of wheat is
A. 50
B. 125
C. 75
D. 100

Answer: B
20. Among the statement given below, which statements /s is / are correct regarding the relationship between enzyme and substrate ?
I. Above a certain concentration of substrate ,
an enzyme reaches its maximum rate of reaction
II. Increasing the substrate concentration to a higher level doesn't reverse the effects of a competitive inhibitor.

III At high substrate concentration, a non competitive inhibitor no longer affects the
enzyme activity .
IV. The higher the concentration of substrate
the faster an enzyme can cataylse a reaction.
A. I and II only
B. I,II and IV
C. I only
D. III and IV only

Answer: C

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21. The microbe also known as 'brewer's yeast'

# A. A rod shaped bacterium called 

 LactobacillusB. An eukaryotic fungi called as S .

## Cerevisiae

# C. A spherical bacterium called 

staphylococci
D. A spherical bacterium called streptococci

Answer: B

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22. A male human, Y-chromosome and

Autosomes and is also hemizygous for autosomal gene $A$ and $B$ and is also hemizygous for hemophilic gene $h$. What proportion of his sperms will be about
A. $\frac{1}{16}$
B. $\frac{1}{4}$
C. $\frac{1}{8}$
D. $\frac{1}{32}$

## Answer: C

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23. What is the genetic meterial of tobacco mosaic virus?
A. Double stranded RNA
B. Double stranded DNA
C. Single stranded RNA

## D. Single stranded DNA

## Answer: C

## D Watch Video Solution

24. Complete the following by selecting the correct option for the blanks A , B and C from the options given below.

The symbiotic association formed by fungi with roots of higher plants is known as .... A....it
is mainly formed by members from the genus.... B..... The fungal symbiont in these associations is responsible for
absorbing......C.......from the soil and passing it to the plant. It also has many other benefits
like resistance to root borne pathogens tolerance to salinity and droughts , etc......D.....

Seeds cannot germinate and establish without the presence of
A. A: Lichen , B: Rhizobium, C: Phosphorus,

D: Cycads
B. A: Mycorrhiza , B: Glomus, C: Potassium,

D: Cycads
C. A: Mycorrhiza , B: Glomus, C: Phosphorus,

D: Pinus

D. A: Lichen, B: Rhizobium, C: potassium ,

D: Pinus

Answer: C

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25. Which of these options is categorized as a

## lectin?

A. Abrin
B. Ricin
C. Concanavalin A
D. None of these

Answer: C
(D) Watch Video Solution
26. Which of these is the correct evolutionary
line of mammals?
A. Sauropsids $\quad \rightarrow \quad$ Synapsids

Therapsids $\rightarrow$ Mammals
B. Sauropsids $\quad \rightarrow \quad$ Suropsids
$\rightarrow$

Therapsids $\rightarrow$ Mammals
C. Sauropsids $\quad \rightarrow \quad$ Therapsids

Mammals
D. Suropsids $\rightarrow$ Therapsids $\rightarrow$ Mammals
27. The correct sequence of the first six amino acids in HbA beta globulin peptide is
A. Valine - Histidine - Leucine - Threonine -

Proline - Glutamic acid
B. Valine - Histidine - Leucine - Proline -

Glutamic acid - Threonine
C. Leucine - Valine - Histidine - Threonine -

Proline - Glutamic acid

# D. Valine - Histidine - Leucine - Threonine - 

## Proline - Valine

## Answer: A

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28. Identify the blanks $A$ and $B$

During MOET procedure done in a cow, the fertilised eggs at ...... ( A.... ) Cells stage are recovered ...... ( B .....) and transferred to surrogate mother.
A. A: 16-64, B: surgically
B. A: 16-64, B : non-surgically
C. A : 8-32, B : surgically
D. A : 8-32, B : non- surgically

## Answer: D

D Watch Video Solution
29. NADP reductase enzyme is present
A. In the mitochondrial matrix
B. in the lumen of thylakoid
C. One the stroma of thylakoid
D. One the inner side of the thylakoid membrane.

## Answer: C

## D Watch Video Solution

30. Which of. These statements about

Mycoplasma is / are true ?
I. Mycoplasma is the smallest cell known.
II. They are not prokaryotic in nature .
III. They can respire only in the presence of oxygen .
IV. They lack cell walls.
A. I and II
B. I and IV
C. I , II and III
D. II and IV

Answer: B
31. The amount of nutrients, such as carbon, nitrogen, phosphorus, calcium, etc. Present in the soil at any given time I reffered to as
A. standing state
B. standing crop
C. standing soil
D. standing earth

Answer: A

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32. Which of the following is the correct about the humus?
A. Black colored organic and inorganic material
B. Dark brown colored crystalline organic and inorganic material
C. Black colored crystalline organic and inorganic material

# D. Dark brown colored amorphous organic 

material

## Answer: D

## D Watch Video Solution

33. Observe the below diagram. Identify the option suggesting the correct functions of A,

## $B$ and C


A. A: Helps in formation of vegetative cells
and can regenerate into new individual
by fragmentation , B : Helps in
attachment to the substratum , C:

Produces female gametes for sexual
reproduction,
B. A: Helps in formation of vegetative cells
and can regenerate into new individual
by fragmentation, B: Produces female
gametes for sexual reproduction , C:

Helps in attachment to the substratum
C. A: Produces female gametes for sexual
reproduction , B: Help in formation of
vegetative cells and can regenerate into
new individual by fragmentation, C:

Helps in attachment to the substratum
D. A: Produces female gametes for sexual
reproduction B: Helps in attachment to
the substratum

C: Help in formation of vegetative cells
and can regenerate into new

## Answer: C

34. If we accept May's global estimates, then
the total species that have been recorded so
far are about
A. $12 \%$
B. $22 \%$
C. $32 \%$
D. $42 \%$

## Answer: B

## 35. The evil quartet represents

A. Four major causes of biodiversity losses
B. Four major causes of ozone depletion
C. Four major causes of global warming
D. Four major causes of water pollution

Answer: A
36. Diabetes mellitus may be treated using insulin from genetic engineering . Where is this insulin produced?
A. Bacterial cytoplasm
B. Bacterial nucleus
C. Human liver
D. Human pancreas

Answer: A

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37. In an electrostatic precipitator,
A. The velocity of air between the plates
must be very high to purify the air.
B. The electrode wires maintained at
several thousand volts produces a
corona which releases positively charged
particles.
C. Particulate matter that are very small
can be removed by precipitation

# D. Collecting plates are grounded and 

 collect negatively charged dust particles
## Answer: D

## D Watch Video Solution

38. A Mendel's law which does not have any exception is
A. Law of dominance
B. Law of segregation

## C. Law of independent assortment

D. None have all exceptions

Answer: B

## D Watch Video Solution

39. Ichthyosaurs are
A. Large marine reptiles which are
presently found in oceans
B. Large marine reptiles which are extinct
C. Large marine fishes which are presently

## found in oceans

## D. Large marine fishes which are extinct

## Answer: B

## D Watch Video Solution

40. Match the tissue / cell with its correct feature / function.

| Tissue | Feature/Function |
| :---: | :---: |
| A $\begin{aligned} & \text { Exocrine } \\ & \text { gland }\end{aligned}$ | Facilitates communication by connecting the cytoplasm of adjoining cells. |
| B <br> Endocrine gland | Chemical messenger are <br> II secreted directly into the fluid connective tissue |
| $C_{\text {Junctions }}^{\text {Gap }}$ | Either cuboidal or columnar <br> IIlepithelium adapted for secretory function |
| Goblet cells | Secretes mucus, saliva, IVdigestive enzyme and other cell products |

## A. A-I,B-III,C-IV,D-II

## B. A-III,B-IV,C-II,D-I

## C. A-IV,B-II,C-I,D-III

## D. A-II,B-I,C-III,D-IV

## Answer: C

## D Watch Video Solution

41. Read the following statements:
I. Eukaryotic cell walls contain peptidoglycans in addition to cellulose.
II. Plasmodesmata and centrioles are found in
all plant cells.
III. Plant cell contains 80s ribosomes which
they use to manufacture proteins.
Iv. Amyloplasts are a type of plastids found in a
plant cell that help so store carbohydrates.
Identify the statements that are INCORRECT
regarding plant cell.
A. I and II only
B. I,IIIII and IV
C. II and IV only
D. I and III only

Answer: A

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42. From the following, the statement /s that will help to determine the specificity of an enzyme is /are:
I. The bonding between $R$ groups of amino acids of the polypeptide
II. The optimum pH of the enzyme
III. The peptide bonds between amino acids of the polypeptide
IV. The shape of the substrate molecule
A. IIII,III and IV
B. I and III only

## C. I only

## D. II,III and IV only

## Answer: C

## - Watch Video Solution

43. From the following, the correct appearance of a chromosome at the beginning of prophase of mitosis and the number of DNA strands in the chromosome is:
A. Appearance of one chromosome :
, Number of DNA strands: 2
B. Appearance of one chromosome :
, Number of DNA strands: 4
C. Appearance of one chromosome :
, Number of DNA strands: 1
D. Appearance of one chromosome :
, Number of DNA strands: 2
44. An electron micrograph of a plant cell shows two different types of them is known to store oils and fats in them, such a plastid is known as :
A. Chloroplast
B. Chromoplast
C. Elaioplast
D. Amyloplast

## Answer: C

## D Watch Video Solution

45. Which feature of bacteria makes them especially useful in biotechnology?
A. They are often pathogens.
B. The have a unique genetic code .
C. They have cell walls.
D. They reproduce rapidly.

## Answer: D

## - Watch Video Solution

46. What is the net gain of ATP in glycolysis ?
A. four
B. three
C. two
D. six

## - Watch Video Solution

47. A foreign gene is inserted in pBR322 using the restriction endonuclease EcoRI . Which of these is true about the E. coli having this pBR322 ?
A. It will be resistant to both antibiotic ampicillin as well as antibiotic tetracycline

# B. It will be resistant to antibiotic ampicillin 

but not resistant to antibiotic tetracycline
C. It will be resistant to antibiotic
tetracycline but not resistant to
antibiotic ampicillin
D. It will be neither be resistance to antibiotic tetracycline nor to antibiotic ampicillin

## - Watch Video Solution

48. Corn is a crop plant. Glow - worms are organisms which give off light. Which process could use these two species to make corn plants which glow?
A. breeding the organisms together
B. causing mutations in the organisms
C. Selective breeding

# D. transferring genes from one species to 

## another species

## Answer: D

## D Watch Video Solution

49. Epiphytes growing on trees is an example of
A. Mutualism
B. Commensalism
C. Amensalism

D. Parasitism

## Answer: B

## D Watch Video Solution

50. Read the following statements about phylum Annelida. Identify the true and false statements and select the correct option after referring to the given table .
A. Annelids are diploblastic , metamerically
segmented, coelomate animals.
B. Their neural system consists of paired ganglia connected by lateral nerves to a single ventral nerve cord .
C. They process longitudinal and circular muscle fibres which help in locomotion.

D Nephridia help them in osmoregulation and excretion.
A. A: False , B: True , C: False , D: True
B. A: False , B: False , C: True , D: True
C. A: True , B: False , C: True , D: False

D. A: False , B: True , C: False , D: True

## Answer: B

## D Watch Video Solution

51. Through photosynthesis, the lungs of earth, Amazon forest is estimated to produce ..... of the total oxygen in earth's atmosphere .
A. One - third
B. One - fourth
C. One - fifth

## D. One - sixth

## Answer: C

## D Watch Video Solution

52. The correct statement about ptyalin and pancreatic amylase is :
A. Ptyalin breaks down only uncooked
starch in acidic medium while pancreatic
amylase breaks down only uncooked starch in alkaline medium.
B. Ptyalin breaks down only cooked starch
in alkaline medium while pancreatic
amylase breaks down only uncooked
starch in acidic medium.
C. Ptyalin breaks down only uncooked
starch in acidic medium while pancreatic
amylase breaks down only cooked starch
in alkaline medium.

# D. Ptyalin breaks down only cooked starch 

in acidic medium while pancreatic amylase breaks down only uncooked starch in alkaline medium.

## Answer: D

## D Watch Video Solution

53. Which of the following statements regarding the structure of contractile proteins are correct?
I. Each actin filaments is made up of two ' F ' actins, which are wound helically around each other.
II. Two types of troponins are distributed at regular intervals on the tropomyosin .
III. The globular head of meromyosin has binding sites for ATP and troponins.

IV myosin is a structure proteins which also
has enzymatic activity.
A. II, III and IV
B. I and IV
C. I,II and III

## D. II and IV

Answer: B

## D Watch Video Solution

54. The joint between the atlas and axis is an example of
A. Pivot joint
B. Ball and socket joint
C. Hinge joint

## D. Gliding joint

## Answer: A

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55. Which of the following statements regarding impulse transmission is incorrect?

I . Chemicals called neurotransmitters are involved in impulse transmission across the synapses.
II. The membranes of the pre - synaptic and
post - synaptic neuron are separated by an empty space called the synaptic cleft.
III. The released neurotransmitters bind to the specific receptors present on the pre - synaptic membrane.
IV. The new potential which develops is always excitatory.
A. II and III
B. I, II and IV
C. I and III
D. II,III and IV

## Answer: D

## D Watch Video Solution

56. Most of the cranial nerves in humans are :
A. motor
B. sensory
C. mixed
D. non- functional

## - Watch Video Solution

57. A tumour inducing autonomously
replicating circular extra - chromosomal DNA
widely used in development of transgenic plant is that of
A. Escherichia coli
B. Bacillus thuringiensis
C. Staphylococcus aureus
D. Agrobacterium tumefaciens

## Answer: D

## D Watch Video Solution

58. Which of the following organisms is known to be a jawless vertebrate?
A. Petromyzon
B. Scoliodon
C. Pristis
D. Trygon

Answer: A

## D Watch Video Solution

59. Mucus secreted by the goblet cells, combined with bicarbonates maintains the alkaline medium of the intestine. The source of bicarbonates is:
A. Intestinal mucosa
B. Gall bladdar
C. Pancreas

## D. Brunner's glands

## Answer: C

## D Watch Video Solution

60. Which of the following is incorrect about
cancer ?
A. Metastasis is seen only in the case of a malignant tumor.
B. The activation of c-onc genes leads to
development of tumors.
C. The patient are given substances called
biological response modifiers such as
alpha-interferons which activates their
immune system and helps in destroying
the tumor.

D. None of the above

## Answer: D

61. Which of the following statements regarding fertilization and implantation is incorrect?
A. Fertilization can occur only if sperm and
ovum simultaneously reach the
ampullary isthmic junction of the
fallopian tube .
B. During fertilization, the sperm comes in
contact with the corona radiata cells of
the ovum first and start degrading it.
C. The division of the morula leads to the
formation of blastocyst.
D. The embryo is formed by the differentiation of inner cell mass.

## Answer: B

## D Watch Video Solution

62. In flowering plants, haustorial cell is
A. The cell of suspensor present at the micropylar end and formed during embryogenesis.
B. The cell of suspensor present at the chalazal end and formed during
embryogenesis.
C. The cell of suspensor present at the micropylar end and formed during the formation of the endosperm.
D. The cell of suspensor present at the chalazal end and formed during the formation of the endosperm.

## Answer: A

## - Watch Video Solution

63. Which of the following is a non - steroidal oral contraceptive?
A. LNG-20

## B. Progesterone only pills

## C. MALA- N

D. Saheli

## Answer: D

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64. Pollination in Vallisneria is
A. Entomophily
B. Epihydrophily
C. Hypohydrophily

D. Myrmecophily

Answer: B

## - Watch Video Solution

65. Match the endocrine glands gives in
column I with their respective hormones in
column II and the functions performed by
those hormones in column III and select the
hormones in column III and select the correct

## option from the codes given below.

| No. | Endocrine gland | No. | Hormone | No | Column III <br> (Functions) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| I | Neuorohypophysis | A | Cortisol | a | Hypocalcemic <br> hormone |
| Adrenal cortex | B | PTH | b | Prevents <br> excessive <br> urination |  |
| III | Thyroid gland | C | Vasopressinc | Hypercalcemic <br> hormone |  |
|  | Parathyroid gland | D | TCT | Anti- <br> inflammatory <br> reaction and <br> suppression of <br> immune |  |
| response |  |  |  |  |  |

## A. I-C-b, II-A-d , III-B-c, IV-D-a

B. I-C-b, II-A-d , III-D-a, IV-B-c

## C. I-C-b, II-A-d , III-D-c, IV-B-a

D. I-B-d, II-B-a , III-C-d, IV-A-b

## Answer: B

## - Watch Video Solution

66. The exaggerated response of the immune
system in which $\lg E$ type of antibody is called
A. Allergy
B. Auto immunity
C. Active immunity

# D. Passive immunity 

## Answer: A

## D Watch Video Solution

67. The steps involved in spermatogenesis are given below. Arrange them in proper sequence and select the correct option.
A. Primary spermatocytes undergo the first meiotic division.
B. Spermatogonia multiply by mitotic division.
C. Transformation of spermatids into sperms.
D. Secondary spermatocytes undergo the second meiotic division.
E. Release of sperms from the seminiferous tubules.
A. A,C,B,E,D
B. $B, A, C, D, E$
C. $B, A, D, C, E$
D. C,D,E,A,B

Answer: C
68. In Drosophila melanogaster ,
A. White eye colour is dominant over red
eye colour and its gene is located on
autosome
B. Red eye colour is dominant over red eye
colour and its gene is located on
autosome
C. White eye colour is dominant over red
eye colour and its gene is located on the

X chromosome
D. Red eye colour is dominant over White
eye colour and its gene is located on the

X chromosome

## Answer: D

69. A woman whose mother was colourblind
and father was haemophilic, marries a colourblind haemophilic man . What is true about their daughters ?
A. All their daughters are colourblind and haemophilic
B. They may have daughters who neither
suffer from colourblindness nor from
haemophilia
C. They may have daughters who are colourblind or haemophilic
D. Some of their daughters are colourblind
but not haemophilic

## Answer: C

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70. The heterocysts present in cyanobacteria are sites of
A. Photosynthesis
B. Nitrogen fixation
C. Carbon dioxide assimilation
D. Gaseous exchange

## Answer: B

D Watch Video Solution
71. The available biomass for the consumption
to herbivores and decomposers in an ecosystem is
A. Gross primary productivity
B. Net primary productivity
C. Secondary productivity
D. Tertiary productivity

## Answer: B

## D Watch Video Solution

72. The chrysophytes are also known as
A......... . Most of the members of this group are
()..........B.......... . The diatoms have a soap - box
like an arrangement of ..........C........... . In which there is deposition of
A. A - golden algae, B- autotrophs, C chains, D-iron.
B. A - dinoflagellates, B - saprotrophs, Ccell wall, D-calcium.
C. A - dinoflagellates, B-heterotrophs, C-
cell membrane, D -phosphorous
D. A - golden algae, B- photosynthetic, C cell wall, D -silica

## Answer: D

## D Watch Video Solution

73. In a plant, tallness is dominant over dwarfness and red flowers are incompletely dominant over white flowers, the hybrid being pink. How many offsprings will be of tall height with pink flowers from a cross involved two
plants each of which is hybrid tall and has pink flowers?
A. $\frac{4}{16}$
B. $\frac{6}{16}$
C. $\frac{10}{16}$
D. $\frac{2}{16}$

Answer: B

## D Watch Video Solution

74. Which of the following belongs to Rhodophyta ?
A. Polysiphonia
B. Sphagnum
C. Polytichum
D. Dictyota

Answer: A

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75. The most important ecologically relevant environmental factor is
A. Temperature
B. Water
C. Light
D. Soil

## Answer: A

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76. A student is about to appear for an examination in the next half an hour. He is extremely anxious. His face is flushed and his
heartbeat has increased . Which of the following could be a probable reason for this ?
A. Secretion of sleep - regulating hormones
by the pineal gland
B. Secretion of glucocorticoids by the adrenal cortex
C. Secretion of TSH by the thyroid gland
D. Secretion of emergency hormones by
the adrenal medulla

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77. Which of the following is correct about seed dormancy?
A. The seed dormancy can be overcome by subjecting the seeds to warm conditions or by application of certain chemicals
like gibberellic acid and nitrites.
B.An external environment like an impermeable and hard seed coat is
responsible for inducing seed dormancy
C. The presence of chemical inhibitors such
as phenolic acids and para - ascorbic
acid are internal factors that induce
dormancy.

## D. More than one option is correct.

## Answer: C

78. Read the following statements about a leaf.

Which amongst them are correct.
I.The swollen leaf- base mainly seen in leguminous plants is called the pulvinus.
II. The axillary bud arises from the axil formed by the leaf.
III. The leaf shape and size differs from plant to plant.
A. Only I
B. I, II and III
C. I and III

## D. I and II

## Answer: B

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79. Read the below Statements about the structure of genetic material and identify the correct ones.
I. Adenine and guanine are bases that have a double ring structure, cytosine, thymine and uracil are based with a single ring structure .
II. An adenine nucleotide from DNA is the same
as an adenine nucleotide from RNA , DNA
adenine pairs with uracil and RNA adenine pairs with thymine.
III. The base pairing that occurs in a double

DNA helix and when RNA is synthesised during
transcription follows the rule that a purine pairs with a pyrimidine.
IV. The two Polynucleotides on a DNA molecule run in opposite directions so that the double helix formed has two strands that are parallel to each other.
A. I, II and III only
B. I, II and IV only
C. II, III and IV only
D. I, III and IV only

## Answer: D

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80. Which of the following element is required in minor for the growth of plants but is extremely important for growth of animals ?
A. Nitrogen

B. Oxygen

C. Sodium
D. Carbon

Answer: C

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81. Vital capacity of the lung is the sum of :
A. Inspiratory capacity and expiratory capacity
B. tidal volume, inspiratory reserve volume and expiratory reserve volume
C. tidal volume, inspiratory reserve volume
residual volume and expiratory reserve
volume
D. residual volume , inspiratory reserve
volume and expiratory reserve volume
82. How many molecules of $\mathrm{CO}_{2}$ will be required to produce 6 molecules of glucose?
A. 38
B. 36
C. 40
D. 32

Answer: B
83. During protein synthesis, ribosome is
found to be performing which of the following jobs?
A. assemble amino acids in a chain
B. carry a copy of gene to cytoplasm
C. contain the code for the synthesis of a

# D. determine the order of bases in the 

 protein
## Answer: A

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84. Which enzyme catalyzes the link reaction?
A. Pyruvate carboxylase
B. Malate dehydrogenase
C. Pyruvate dehydrogenase

## D. Acetyl CoA dehydrogenase

## Answer: C

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85. There is a tRNA with anticodon UAC. If we
apply the wobble hypothesis, then this tRNA
can decode which of these codons?
A. It can decode AUG, AUG, AUU, AUA
B. It can decode AUG and AUG but not AUU

and AUA

C. It can decode AUG but not AUG, AUU and

AUA
D. It cannot decode any one of these codons AUG,AUG,AUU and AUA

Answer: C

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86. Which of the following phytophormones
are used to hasten the process of maturation
in conifers
A. ABA
B. Auxin
C. Gibberellin
D. Cytokinin

Answer: C

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87. Collenchyma shows all of the following characteristic features, except
A. They possess thickened cell wall
B. They are dead at maturity
C. They possess vacuoles, for storage of
food
D. They have cell wall which contains
cellulose, pectin and hemicellulose

Answer: B

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88. Which of these statements is true ?
A. Eutrophication is always the result of anthrognic action .
B. A water body severely polluted with organic matter will have a low biological oxygen demand
C. In the town of Arcata, California
biologists developed a series of ten
connected marshes over sixty hectares
of marshland
D. Recycling is the only solution for the treatment of electronic waste.

## Answer: D

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89. Which of these events are parts of mitosis
?
I. Interphase
II. Anaphase
III. Cytokinesis
A. I , II and III
B. I and III only
C. I only
D. II only

Answer: D

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## 90. Vesicles can be formed by which structures

## from the following ?

| Cell Surface | Endoplasmic | Golgi |
| :--- | :--- | :--- |
| Membrane | Reticulum | Body |
| I Yes | Yes | Yes |
| II Yes | Yes | No |
| III Yes | No | Yes |
| IVNo | Yes | Yes |

A. I
B. II
C. III
D. IV

Answer: A
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